

IPRO 302 Heat Driven Refrigeration System

Currently, the team has a half-assembled prototype of a heat driven refrigeration system from a Spring 2001 IPRO team. However, much work needs to be done to this prototype before testing can begin on it.

The team has broken up into four main groups to tackle the task of completing the mechanical, electrical, and control subsystems of the unit. The team is divided into groups that deal with the following areas: tubing, boiler units, electrical system, and data acquisition/controls. Below is a break down of each group along with some objectives.

Boiler Unit: Alex Callow, Dylan Easley, Sean McCann

Finish installation of boilers complete with float sensors, resistor heaters, and thermocouples. Validate that the two boilers function correctly independently and in tandem.

Tubing: Thomas Alworth, Anna Ryu, Wendell Holmes, Hyang Han

Remove the unsuitable, existing tubing and replace it with new tubing and appropriate insulation.

Electrical Systems: Eric Dunaway, Keon Kim, Donghoon Lee

Check all existing, unfinished systems for faulty wiring, and complete them so that the prototype is operable.

Data Acquisition / Controls: Tony Arkwright, John Brandt

Coordinate the acquisition of data from the system, and start a control system that may back up or replace the unfinished, electrical control system.

The groups will be re-evaluated in a couple weeks to make changes if necessary.